

5 What is claimed is:

1. A retroreflective sleeve for application to a support comprising a flexible substrate having a viewing surface and a non-viewing surface and at least one retroreflective band ✓
bonded to a flexible substrate wherein a portion of the flexible substrate is exposed on the
10 viewing surface.
2. The method of claim 1 wherein the flexible substrate is non-retroreflective.
3. The retroreflective sleeve of claim 1 wherein the retroreflective band is at least as
15 flexible as the flexible substrate.
4. The retroreflective sleeve of claim 1 wherein the band has an elongation at break
of at least 100% according to ASTM D 882.
- 20 5. The retroreflective sleeve of claim 1 wherein the band has an elongation at break
of at least 200% according to ASTM D 882.
6. The retroreflective sleeve of claim 1 wherein the band has an elongation at break
of at least 300% according to ASTM D 882.
- 25 7. The retroreflective sleeve of claim 1 wherein the retroreflective band is
substantially free of backing.
8. The retroreflective sleeve of claim 7 wherein the retroreflective band consists
30 essentially of microspheres at least partially embedded in a binder layer and specular or
diffuse reflecting material.
9. The retroreflective sleeve of claim 7 wherein the retroreflective band comprises a
fabric backing.

35

- 5 10. The retroreflective sleeve of claim 7 wherein the retroreflective band comprises an adhesive.
11. The retroreflective sleeve of claim 10 wherein the adhesive is heat activated.
- 10 12. The retroreflective sleeve of claim 1 wherein the substrate comprises a base arcuate edge and a top arcuate edge parallel to the base arcuate edge and a pair of side edges.
- 15 13. The retroreflective sleeve of claim 12 wherein the retroreflective sleeve comprises at least two bands aligned substantially parallel with the base and top arcuate edges.
14. The retroreflective sleeve of claim 12 wherein upon joining the side edges a conical shape is formed.
- 20 15. The retroreflective sleeve of claim 14 wherein the conical shape comprises a single opening about the base arcuate edge.
16. The retroreflective sleeve of claim 14 wherein the conical shape comprises a pair of openings about each arcuate edge forming a cone collar.
- 25 17. The retroreflective sleeve of claim 16 wherein a first band shares a common edge with the base arcuate edge and a second band shares a common edge with the top arcuate edge and the fabric is exposed between the first and second bands.
- 30 18. The retroreflective sleeve of claim 1 wherein the substrate is rectangular having two pairs of parallel edges.
19. The retroreflective sleeve of claim 18 wherein upon joining one pair of edges a cylindrical shape is formed.

35

- 5 20. The retroreflective sleeve of claim 1 wherein the flexible substrate is selected from fabric, mesh and film.
21. The retroreflective sleeve of claim 1 further comprising a support selected from cones, drums, tubes, stakes, posts, coils, sign support, and traffic sign.
- 10 22. The retroreflective sleeve of claim 21 wherein the support has a viewing surface and the sleeve covers a portion of the viewing surface of the support.
23. The retroreflective sleeve of claim 21 wherein the support has a viewing surface and the sleeve covers substantially the entire viewing surface of the support.
- 15 24. The retroreflective sleeve of claim 1 wherein the support is a color and the flexible substrate is the same color as the support.
- 20 25. The retroreflective sleeve of claim 1 wherein the flexible substrate is a conspicuous color.
26. The retroreflective sleeve of claim 25 wherein the substrate is a fluorescent color.
- 25 27. An article comprising a support having a substantially continuous viewing surface✓ and a non-retroreflective conspicuously colored sleeve substantially covering the viewing surface of the support.
28. The retroreflective article of claim 27 wherein the retroreflective sleeve further comprises a retroreflective band.
- 30 29. An article comprising a support and a non-retroreflective sleeve having a viewing surface comprising at least one of indicia, symbols, graphics, and combinations thereof✓.
- 35 30. A roll-up sign comprising the sleeve of claim 1.

- 5 31. A method of making a retroreflective sleeve comprising
providing a flexible substrate that is triangular or rectangular in shape;
providing at least one retroreflective band; and
bonding the band to the flexible substrate.
- 10 32. The method of claim 31 wherein the retroreflective band is a transfer film.
33. The method of claim 31 wherein bonding is achieved by laminating the transfer
film at a temperature ranging from about 150°C to 200°C.
- 15 34. The method of claim 31 wherein the retroreflective transfer film consists
essentially of a multitude of microspheres at least partially embedded in a binder layer and
associated specular or diffuse reflecting material.
- 20 35. The method of claim 31 wherein the retroreflective band is substantially free of
backing.
36. A method of making a retroreflective sleeve comprising
providing a flexible substrate;
providing at least one retroreflective band;
25 bonding the band to the flexible substrate forming a laminate; and
forming the laminate into a triangular or rectangular shape.